

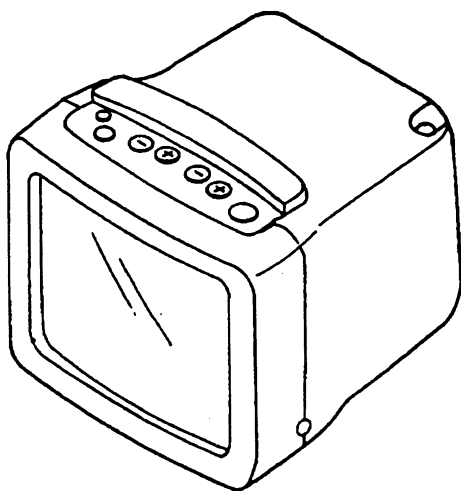
SERVICE MANUAL

<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>	<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>
KV-25TH		US	SCC-H11C-A				

Note :

1. Adjustment Manual for this model is separately published.

	Adjustment Manual
Part No.	9-965-004-11



TRINITRON® COLOR TV
SONY®

※ Please file according to model size. ▣

5

SPECIFICATIONS

Television system	American TV standard, NTSC color	Output	Headphone jack
Channel coverage	VHF channels 2-13 UHF channels 14-69	Power requirements	120 V AC, 60 Hz (AC power adaptor) 12 / 24 V DC
Picture tube	5-inch picture measured diagonally, 90-degree deflection	Power consumption	30 W max
Antenna	VHF / UHF telescopic antenna	Dimensions	Approx. 175 X 152 X 190 mm (w/h/d) (7 X 6 X 7 ¹ / ₃ inches)
Speaker	50 mm round (2 inches), 1 W	Mass	Approx. 2.4 kg (5 lb 5 oz)
Inputs	VIDEO : RCA phono-type 1 Vp-p, 75 ohms AUDIO : RCA phono-type monaural EXT ANT (Combined VHF / UHF 75- ohm, mini-type)	Supplied accessories	AC power adaptor AC-600 (1) Car battery cord (1)
		Optional accessories	Connecting cord VMC-920MS

Design and specifications are subject to change without notice.

(CAUTION)

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK Δ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any). Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-100 watt trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

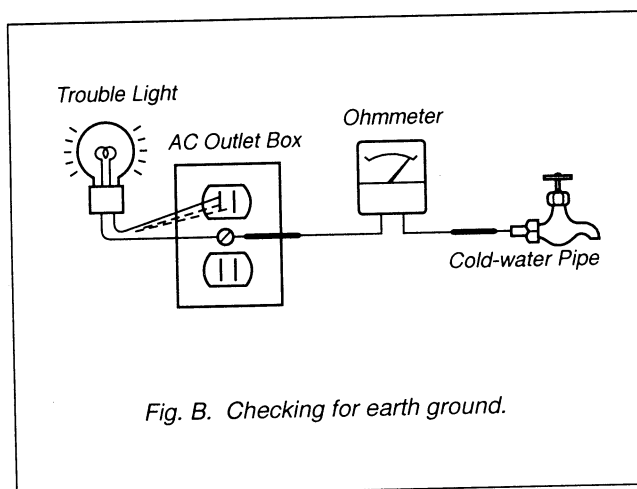
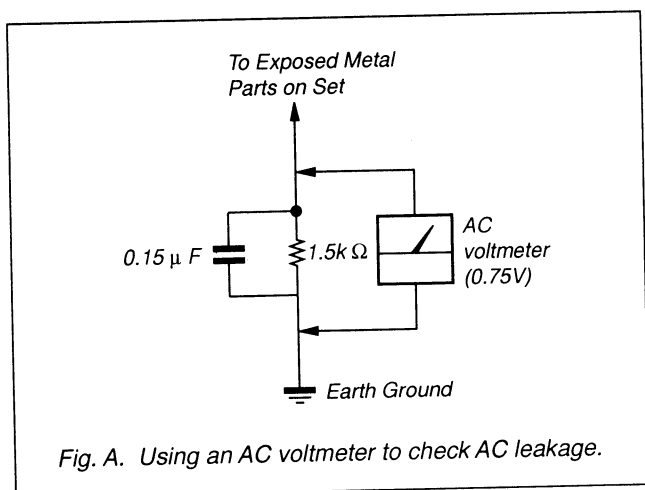


TABLE OF CONTENTS

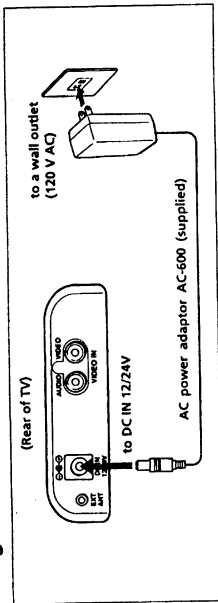
<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
1. GENERAL			4. DIAGRAMS		
	Connections	5	4-1. Block Diagram		11
	Presetting Channels	5	4-2. Circuit Boards Location		14
	Watching the TV	6	4-3. Printed Wiring Boards and Schematic Diagrams		14
	Adjusting the Picture	6	• A Board		18
	Connecting Video Equipment	7	• H Board		26
2. DISASSEMBLY			• D Board		28
2-1. Top Cabinet Assy Removal		8	• C Board		31
2-2. D Board Removal		8	4-4. Semiconductors		34
2-3. H Board Removal		8	5. EXPLODED VIEW		
2-4. Service Position		8	5-1. Chassis		35
2-5. Picture Tube Removal		9	5-2. Packing		36
3. SAFETY RELATED ADJUSTMENTS		10	6. ELECTRICAL PARTS LIST		37

SECTION 1 GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

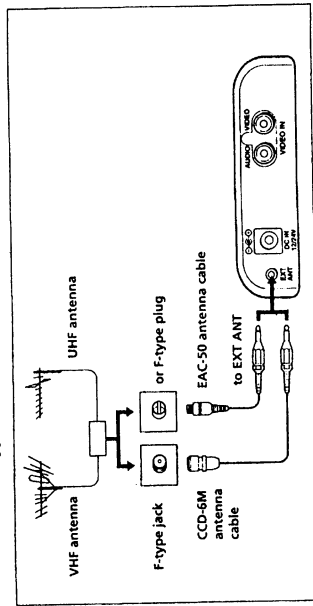
▶ Getting Started Connections

Using house current



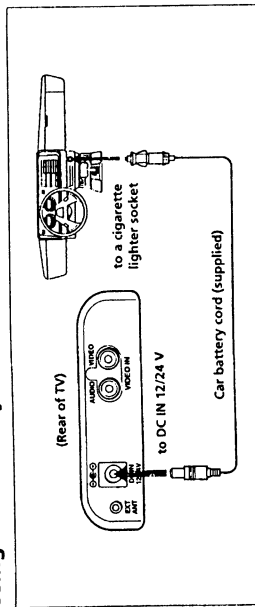
Connecting the outdoor antenna

To connect, use EAC-50 antenna cable (not supplied) for F-type plug or CCD-6M antenna cable (not supplied) for F-type jack.



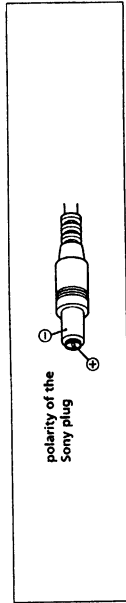
- To connect CCD-6M to the F-type plug, use EAC-40 F-type joint (not supplied).
- If you need to prepare the end of the antenna cable, use EAC-33 antenna connector (not supplied).

Using a car battery



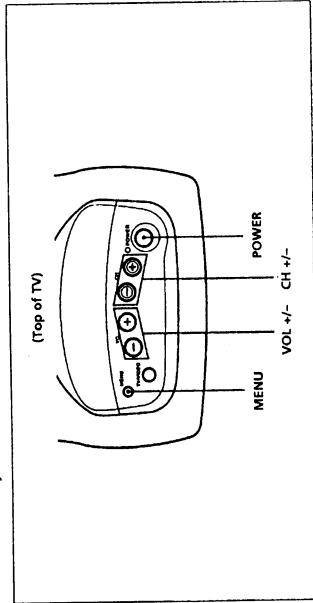
Notes

- For car use, the TV is designed for negative ground 12/24 V DC operation only.
- When you aren't using the TV, remove the car battery cord from the cigarette lighter socket.
- Use only the supplied AC power adaptor or car battery cord manufactured by Sony. Polarity of the plugs of other manufacturers may be different.



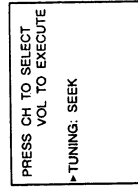
Presetting Channels

You can preset TV channels easily: first store all the receivable channels automatically following the procedure below, then erase unnecessary channels or add the channels you want.

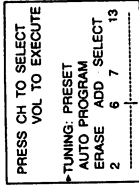


1 Press POWER to turn the TV on.

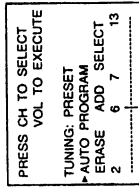
2 Press MENU three times.
The display for presetting appears.



3 Press VOL + or - to select PRESET.



4 Press CH + or - to move the cursor to AUTO PROGRAM and press VOL + or -.



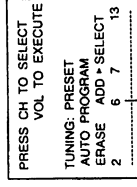
Receivable channels will be preset in numerical sequence. When no more channels can be found, the programming stops and the channel bar shows the lowest channel number.

Channels that can be received on this TV:

VHF: 2-13
UHF: 14-69

Erasing or adding channels

1 Press CH + or - to move the cursor to SELECT.

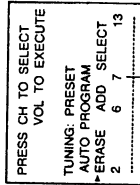


2 Press VOL + or - to move a bar to select the channel to be added.

3

To erase the channel

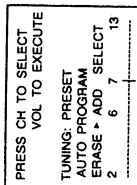
Press CH + or - to move the cursor to ERASE and press VOL + or - to execute.



This channel has now been erased from the channel scan memory. The next time you press CH + or -, this channel will be skipped.

To add the channel

Press CH + or - to move the cursor to ADD and press VOL + or - to execute.



This channel has now been added to the channel scan memory.

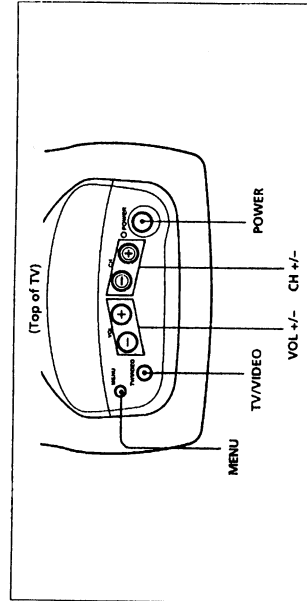
6

To scan all the channels when you watch the TV

Set TUNING to SEEK.

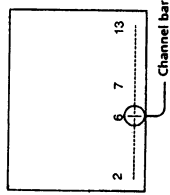
Operations

Watching the TV



1 Press POWER to turn the TV on.

If "VIDEO" appears on the screen, press TV/VIDEO so that a channel bar appears.



2 Press CH + or - to select the channel you want to watch.

3 Press VOL + or - to adjust the volume.

To increase volume, press "+".
To decrease volume, press "-".

To turn off the TV

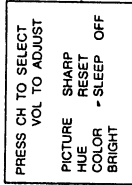
Press Power.

Setting the Sleep Timer

You can set the TV to turn off automatically after the length of time you specified elapses.

1 Press MENU twice to display the menu screen.

2 Press CH + or - to move the cursor to SLEEP.



3 Press VOL + repeatedly until the time (minutes) you want appears. Each time you press VOL +, the time changes as follows: 30 → 60 → 90 → OFF. The TV is then set for the length of time you specify and shuts off automatically.

The "SLEEP OFF" display will appear 1 minute before the TV turns off.

To cancel the sleep timer

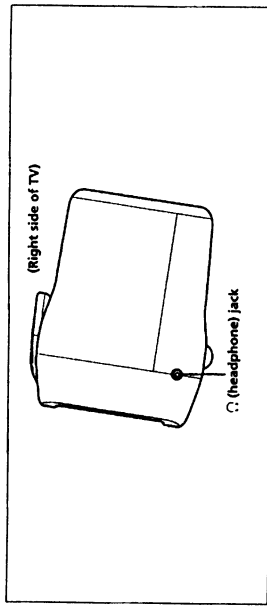
Press VOL + repeatedly until "OFF" appears.

Displaying the input mode

Press MENU. The current input modes (channel bar or VIDEO) will be displayed on the screen for 5 seconds.

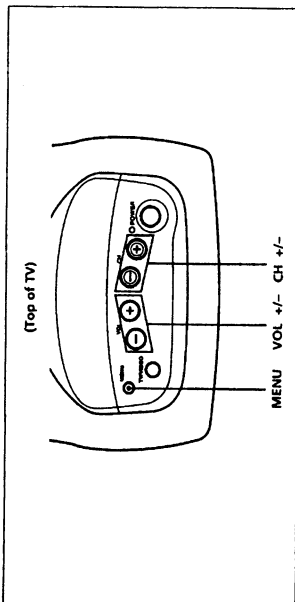
Listening with a headphone

You can listen to the TV's sound through an optional headphone connected to a (headphone) jack.



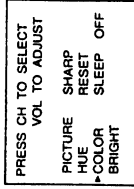
Adjusting the picture

You can adjust the quality of the picture to suit your taste. For details on each item, see "Description of adjustable items" below.



1 Press MENU twice.

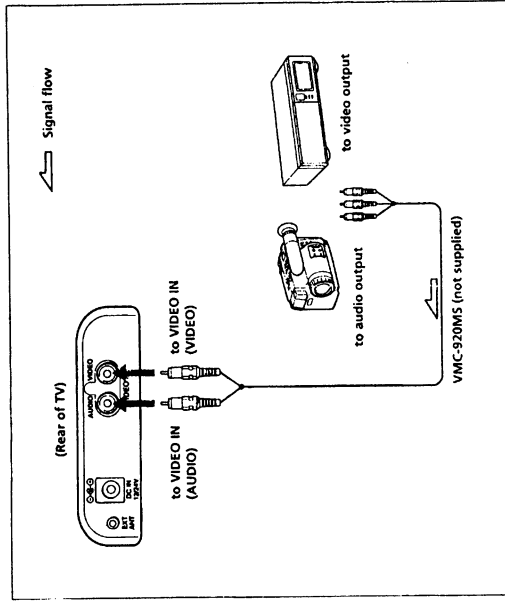
2 Press CH + or - to move the cursor to the item you want to adjust (PICTURE, HUE, COLOR, BRIGHT or SHARP). For example: To adjust color intensity, press CH + or - to select COLOR.



Connecting Video Equipment

Connecting a VCR or 8mm video camera

Before connecting, turn off the power on all equipment.



Watching a VCR picture

- 1** Turn on the TV.
 - 2** Press TV/VIDEO so that "VIDEO" appears on the screen.
- To return to TV mode**
Press TV/VIDEO so that a channel bar appears on the screen.

- 3** Press VOL + or - to adjust the selected item:
Control bar appears.



The control bar disappears 5 seconds after the picture is adjusted and the menu screen appears.

Description of adjustable items

ITEM	Press VOL - to	Press VOL + to
PICTURE	Decrease picture contrast	Increase picture contrast
HUE	Make skin tones become purplish	Make skin tones become greenish
COLOR	Decrease color intensity	Increase color intensity
BRIGHTNESS	Decrease brightness	Increase brightness
SHARPNESS	Soften the picture	Sharpen the picture

To turn the display off

Press MENU until the menu screen is turned off.

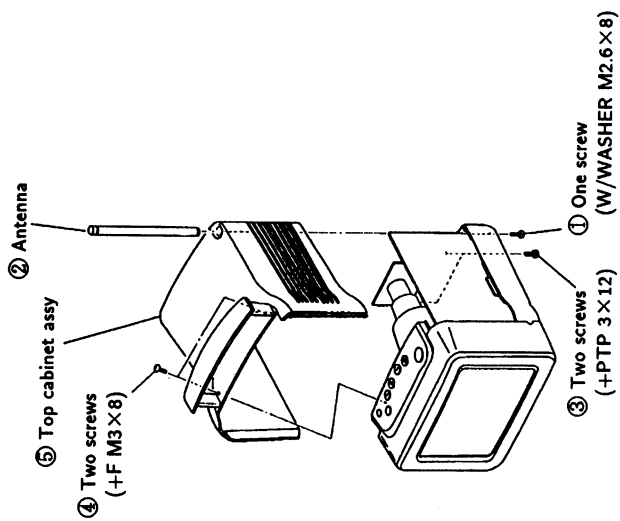
To restore the factory preset levels

- 1** Press MENU twice.
 - 2** Press CH + or - to move the cursor to RESET.
- PRESS CH TO SELECT VOL TO ADJUST

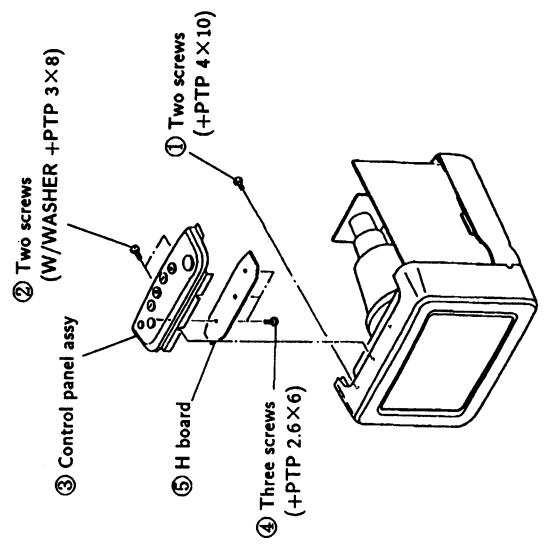
PICTURE SHARP
HUE +RESET
COLOR SLEEP OFF
BRIGHT
- 3** Press VOL + or - to restore the all picture settings.
 - 4** Press MENU until the menu screen is turned off.

SECTION 2 DISASSEMBLY

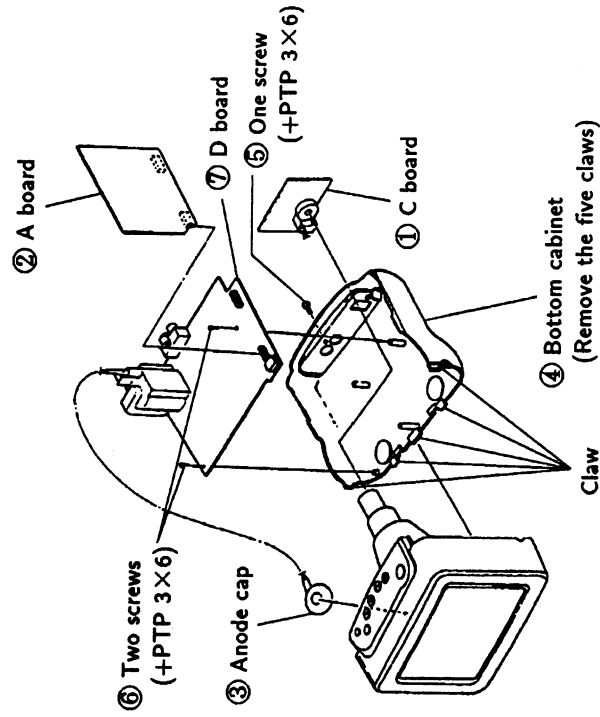
2-1. TOP CABINET ASSY REMOVAL



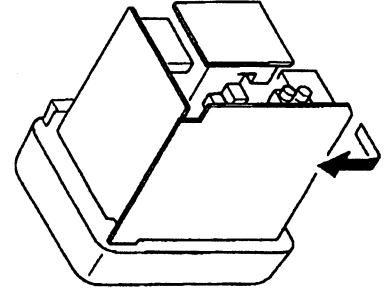
2-3. H BOARD REMOVAL



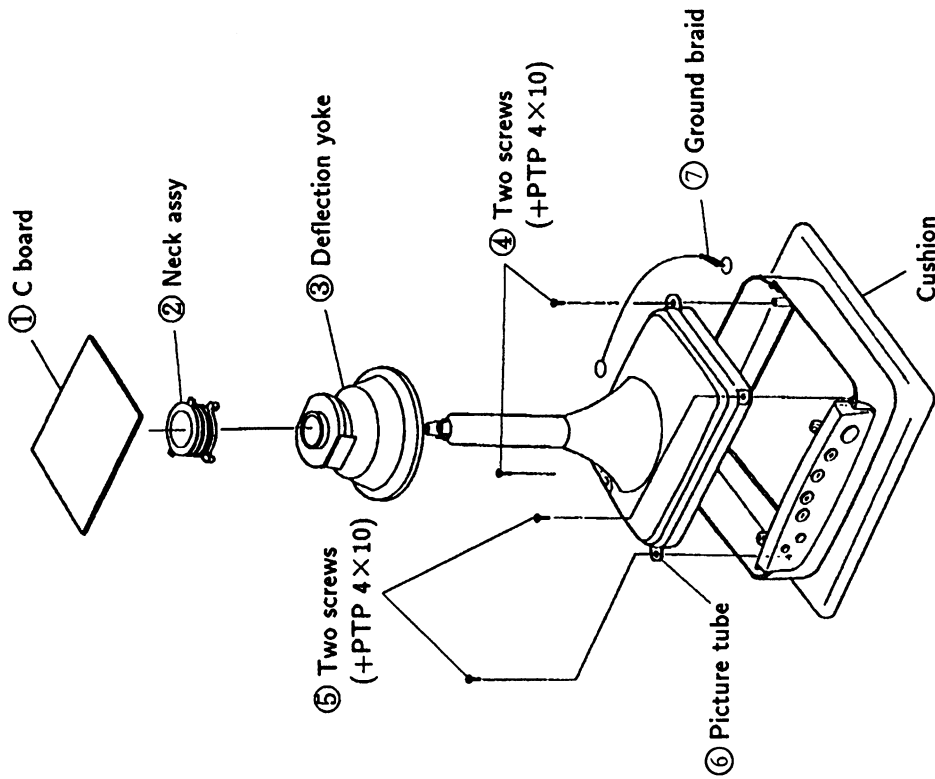
2-2. D BOARD REMOVAL



2-4. SERVICE POSITION



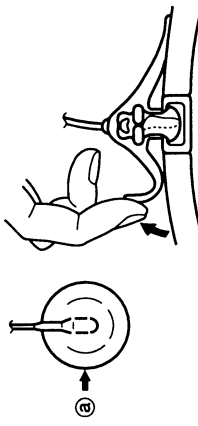
2-5. PICTURE TUBE REMOVAL



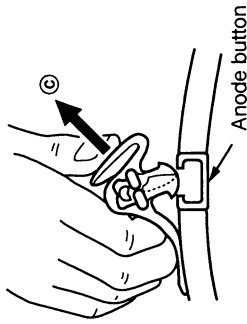
• REMOVAL OF ANODE-CAP

NOTE: Short circuit the anode of the picture tube and the anode cap to the metal chassis. CRT shield or carbon painted on the CRT, after removing the anode.

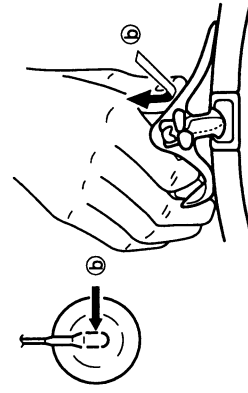
• REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ③.



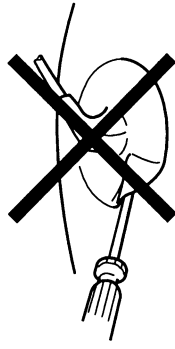
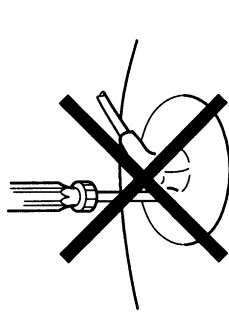
② When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ④.






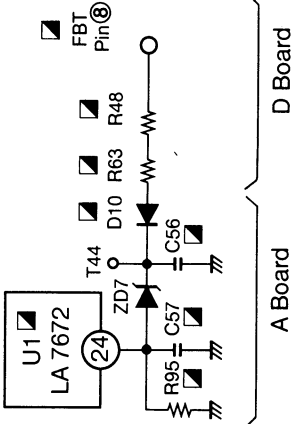
③ Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⑤.

• HOW TO HANDLE AN ANODE-CAP

- ① Don't hurt the surface of anode-caps with sharp shaped material!
- ② Don't press the rubber hardly not to hurt inside of anode-caps! A material fitting called as shatter-hook terminal is built in the rubber.
- ③ Don't turn the foot of rubber over hardly! The shatter-hook terminal will stick out or hurt the rubber.



SECTION 3 SAFETY RELATED ADJUSTMENTS

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>HOLD-DOWN CONFIRMATION AND READJUSTMENT</p> <p>The following adjustment should be performed when replacing the following components. Marked with  on the schematic diagram.</p> <ol style="list-style-type: none"> 1. Set *the power source to $*120 \pm 5$ V AC. 2. Set the PICTURE and BRIGHTNESS controls to *adjustment. 3. Receive a *signal. 4. Confirm that of *TP is *DC voltage. 5. Next, apply external *voltage to *TP and confirm that it hold down. 6. When step 5 is not satisfied, readjustment should be performed by altering the components value. (A and D boards marked with ) <p>+B VOLTAGE CONFIRMATION</p> <p>Confirm that cathode side of *diode is $*41 \pm 1.0$ V DC.</p>	<p>* AC Power Adaptor</p> <p>*color-bar signal</p>	<p>*  marked parts U1, D10, ZD7, C56, C57, R95 (A board) U101, U102, Q110, ZD103, ZD106, R63, R48, R116, R117, R132, T1, T2 (D board)</p>	<p>*PICTURE BRIGHTNESS }maximum</p>	 <p style="text-align: center;">* 120 ± 5 V AC</p> <p style="text-align: center;">* 16 V DC</p> <p style="text-align: center;">* 25 V DC</p> <p style="text-align: center;">* 41 ± 1.0 V DC</p>

SECTION 5 EXPLODED VIEWS

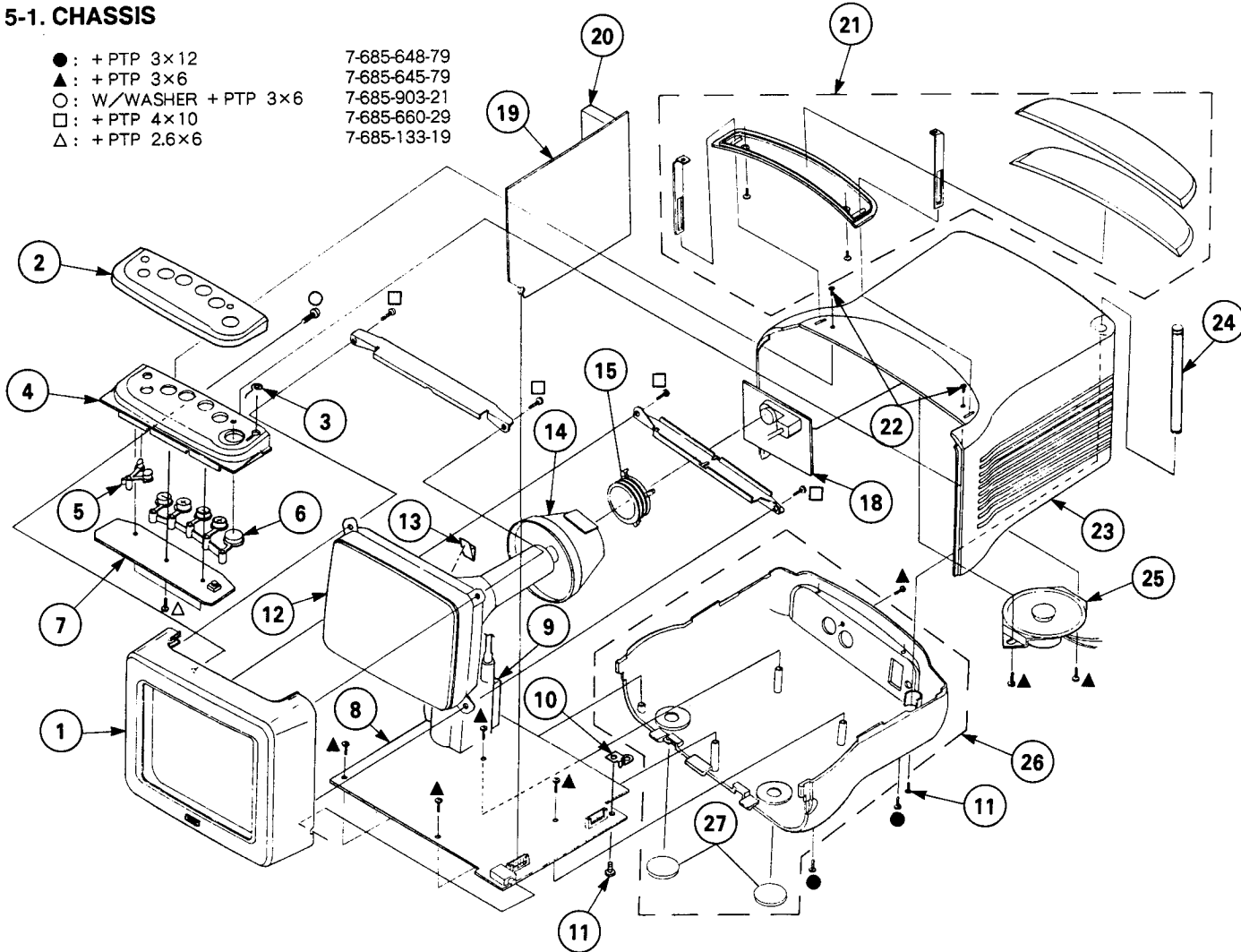
NOTE :

- Items with on part number and on description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

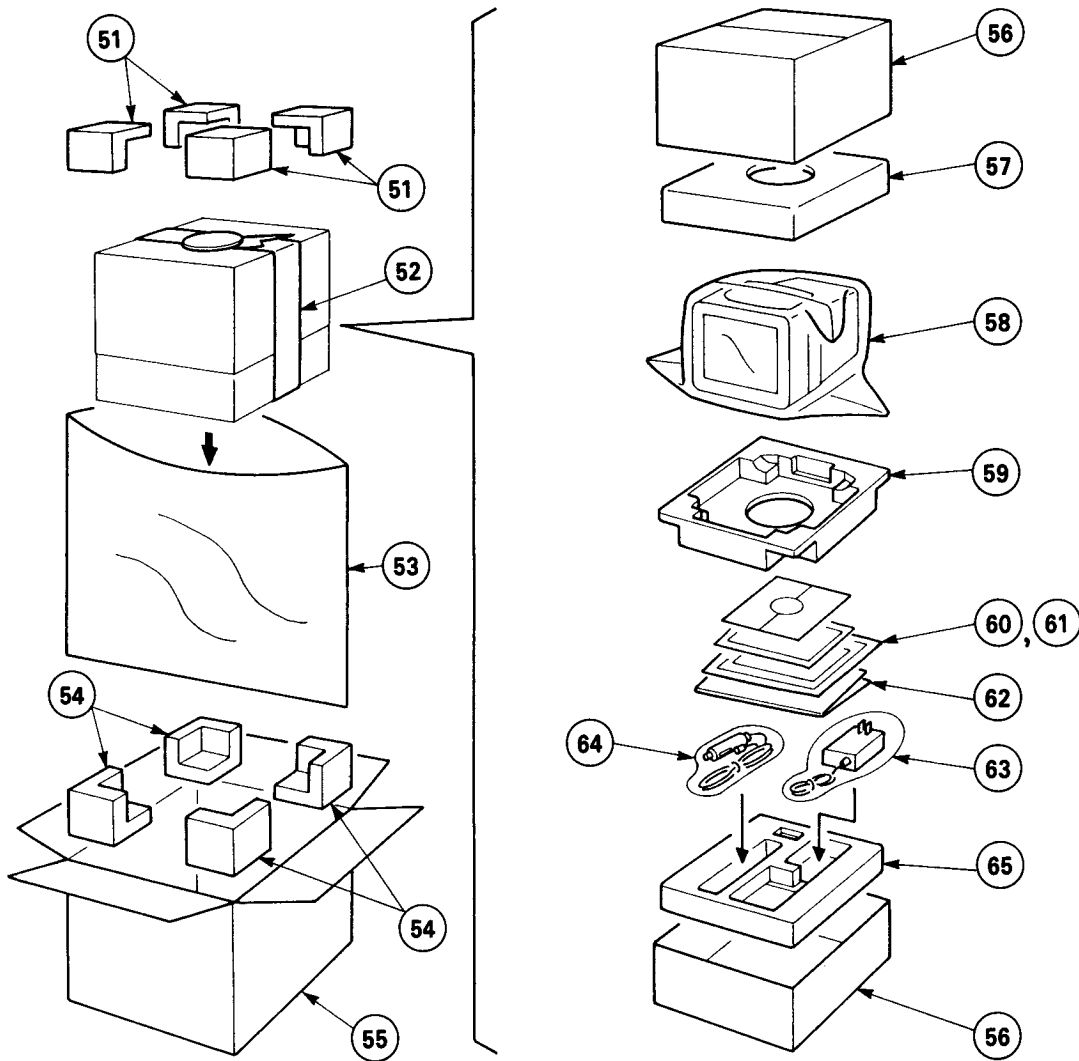
5-1. CHASSIS

- | | |
|------------------------|--------------|
| ● : + PTP 3×12 | 7-685-648-79 |
| ▲ : + PTP 3×6 | 7-685-645-79 |
| ○ : W/WASHER + PTP 3×6 | 7-685-903-21 |
| □ : + PTP 4×10 | 7-685-660-29 |
| △ : + PTP 2.6×6 | 7-685-133-19 |



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
1	9-909-470-01	BEZEL SUB ASSY		15	1-452-749-11	NECK ASSY (NA-201)	
2	9-909-455-01	ALUMINUM CAP FOR CONTROL PANEL		18	*9-909-414-01	C BOARD, COMPLETE	
3	9-909-454-01	CONTACT SPRING		19	*9-909-430-01	A BOARD, COMPLETE	
4	9-909-456-01	CONTROL PANEL-A (25TH)		20	9-909-439-01	TUNER TUHUF3U-291 MURATA	
5	9-909-463-01	FUNCTION KEY-B (25TH)		21	9-909-471-01	HANDLE ASSY	
6	9-909-457-01	FUNCTION KEY-A (25TH)		22	9-909-462-01	SCR M3×8 F+ SPCC ZMC3	
7	*9-909-450-01	H BOARD, COMPLETE		23	9-909-473-01	TOP CABINET SUB ASSY	
8	*9-909-417-01	D BOARD, COMPLETE		24	9-909-465-01	ANTENA	
9	9-909-428-01	FBT EFFI-01 SAMPO		25	9-909-460-01	SPEAKER 8 OHM 1W 1.5"	
10	9-909-464-01	ANTENA CONTACT PLATE		26	9-909-472-01	BOTTOM CABINET SUB ASSY	
11	9-909-461-01	SCR M2.6×3 W/WASHER SPCC NI		27	9-909-466-01	RUBBER FOOT	
12	8-738-658-05	PICTURE TUBE (A13LDS00X)		28	4-039-836-11	EMBLEM, SONY	
13	2-161-889-02	YORK SPACER					
14	8-451-454-11	DEFLECTION YORK (Y06JSA2K)					

5-2. PACKING



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
51	4-046-879-01	CUSHION (UPPER) (ASSY), CORNER		59	4-046-832-01	CUSHION (LOWER)	
52	4-046-910-01	MEDAL (ASSY)		60	3-759-696-21	INSTRUCTION MANUAL	
53	4-854-939-01	BAG, PROTECTION (600×700)		61	9-909-467-01	ANTENA CONNECTOR	
54	4-046-880-01	CUSHION (LOWER) (ASSY), CORNER		62	4-046-803-01	CARDBOARD	
55	4-046-878-01	INDIVIDUAL CARTON (B)		63	9-909-469-01	AC ADAPTOR	
56	4-046-804-01	INDIVIDUAL CARTON (A)		64	9-909-468-01	CAR BATTERY CORD	
57	4-046-831-01	CUSHION (UPPER)		65	4-046-833-01	CUSHION, ACCESSORY	
58	4-916-519-01	BAG (SP), PROTECTION (400×400)					

SECTION 6 ELECTRICAL PARTS LIST



NOTE :

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

When indicating parts by reference number, please include the board name.

- CAPACITORS COILS
- MF : μ F, PF : μ μ F • MMH : mH, UH : μ H

- RESISTORS**
- All resistors are in ohms.
 - F : nonflammable

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
	*9-909-414-01	C BOARD, COMPLETE *****				<VARIABLE RESISTOR>	
		<CAPACITOR>					
C1	1-107-473-11	CERAMIC 220PF	50V	VR1	Δ 1-238-076-11	RES, ADJ, METAL GLAZE 4.7K	
C2	1-107-473-11	CERAMIC 220PF	50V	VR2	1-238-076-11	RES, ADJ, METAL GLAZE 4.7K	
C3	1-107-473-11	CERAMIC 220PF	50V	VR3	Δ 1-238-076-11	RES, ADJ, METAL GLAZE 4.7K	
C4	1-162-114-00	CERAMIC 4700PF	2KV	VR4	1-230-494-11	RES, ADJ, METAL GLAZE 1K	
C5	1-161-830-00	CERAMIC 4700PF	500V	VR5	1-230-494-11	RES, ADJ, METAL GLAZE 1K	

C6	1-126-542-11	ELECT 4.7MF	160V		*9-909-417-01	D BOARD, COMPLETE	
C7	1-107-444-11	CERAMIC 100PF	2K			*****	
		<CONNECTOR>			2-832-002-00	BUSHING F-1, INSULATOR	
CN1	9-933-682-01	CONNECTOR MALE 2P			4-875-726-11	SHEET, INSULATING	
CN2	9-909-415-01	CONNECTOR MALE 4P			7-684-023-04	NAT 3x2.5	
CN3	1-526-958-71	SOCKET, PICTURE TUBE 9P			7-684-023-04	NAT M3	
CN4	9-933-683-01	CONNECTOR MALE 3P			7-682-148-15	SCREW +P 3x8	
		<COIL>			7-682-548-09	SCREW 3x8	
L1	1-408-080-00	INDUCTOR 100UH				<CAPACITOR>	
		<TRANSISTOR>		C8	1-126-801-11	ELECT 1MF	50V
Q1	8-729-021-73	TRANSISTOR 2SC2229		C10	1-137-370-11	FILM 0.01MF	50V
Q2	8-729-021-73	TRANSISTOR 2SC2229		C11	1-102-129-00	CERAMIC 0.01MF	50V
Q3	8-729-021-73	TRANSISTOR 2SC2229		C14	1-126-804-11	ELECT 100MF	50V
		<RESISTOR>		C24	1-126-801-11	ELECT 1MF	50V
R1	1-249-419-11	CARBON 1.5K	1/4W	C25	Δ 1-104-615-11	ELECT 680MF	16V
R2	1-249-419-11	CARBON 1.5K	1/4W	C27	Δ 1-126-804-11	ELECT 100MF	50V
R3	1-249-420-11	CARBON 1.8K	1/4W	C28	1-102-947-00	CERAMIC 10PF	50V
R4	1-249-413-11	CARBON 470	1/4W	C29	9-909-424-01	FILM 0.1MF	200V
R5	1-249-421-11	CARBON 2.2K	1/4W	C30	Δ 1-129-719-00	FILM 0.027MF	630V
R6	1-249-421-11	CARBON 2.2K	1/4W	C31	Δ 1-104-589-11	FILM 1.8MF	160V
R7	1-216-463-00	METAL FILM 12K	2W	C32	9-933-684-01	CERAMIC 330PF	500V
R8	1-216-463-00	METAL FILM 12K	2W	C34	1-136-620-11	FILM 0.047MF	50V
R9	1-216-463-00	METAL FILM 12K	2W	C35	Δ 1-124-340-00	ELECT 22MF	200V
R10	1-249-405-11	CARBON 100	1/4W	C36	1-104-798-11	ELECT 4.7MF	100V
R11	1-249-405-11	CARBON 100	1/4W	C37	1-102-125-00	CERAMIC 4700PF	50V
R12	1-249-421-11	CARBON 2.2K	1/4W	C38	Δ 1-124-667-11	ELECT 10MF	100V
R13	1-249-411-11	CARBON 330	1/4W	C40	1-126-336-11	ELECT 220MF	25V
R14	1-249-411-11	CARBON 330	1/4W	C42	Δ 1-104-798-11	ELECT 4.7MF	100V
R15	1-249-405-11	CARBON 100	1/4W	C43	1-124-525-11	ELECT 1000MF	25V
R16	1-202-838-00	SOLID 100K	1/2W	C44	1-126-801-11	ELECT 1MF	50V
R17	1-202-719-00	SOLID 1M	1/2W	C45	Δ 1-104-793-51	ELECT 470MF	50V
				C46	1-137-399-11	FILM 0.1MF	100V
				C101	Δ 1-126-800-51	ELECT 2200MF	35V
				C102	Δ 1-126-804-11	ELECT 100MF	50V
				C103	1-102-125-00	CERAMIC 4700PF	50V
				C105	1-126-375-11	ELECT 100MF	25V
				C106	1-161-059-00	CERAMIC 0.047MF	50V

D

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C107	1-102-074-00	CERAMIC	1000PF	50V	ZD104	8-719-930-61	DIODE HZ30-1
C108	1-126-337-11	ELECT	22MF	63V	ZD105	8-719-110-17	DIODE RD10ES-B2
C109	1-126-967-11	ELECT	47MF	50V	ZD106	8-719-910-62	DIODE HZ6A2L
C110	1-126-804-11	ELECT	100MF	50V	ZD107	8-719-109-85	DIODE RD5.1ES-B2
C111	1-107-473-11	CERAMIC	220PF	50V	ZD111	8-719-109-97	DIODE RD6.8ES-B2
C113	Δ 1-126-104-11	ELECT	470MF	35V	ZD112	8-719-930-61	DIODE HZ30-1
C114	Δ 1-126-951-11	ELECT	470MF	50V	ZD113	8-719-906-53	DIODE HZ15-3
C116	1-126-935-11	ELECT	470MF	16V			<IC>
C117	1-126-336-11	ELECT	220MF	25V			
C118	1-136-559-11	FILM	4700PF	630V			
C119	1-161-063-00	CERAMIC	0.1MF	50V	U101	8-759-991-02	IC NE-555P
C120	1-136-187-00	FILM	0.047MF	250V	U102	8-759-908-15	IC TL431CLP
C121	1-107-473-11	CERAMIC	220PF	50V	U103	8-759-708-05	IC NJM78L05A
C122	1-107-473-11	CERAMIC	220PF	50V	U1	8-759-045-23	IC LA7838
C123	1-107-473-11	CERAMIC	220PF	50V			<JACK>
C124	1-161-057-00	CERAMIC	0.033MF	50V			
C125	1-136-187-00	FILM	0.047MF	250V	JK1	9-909-419-01	MONO PHONE JACK
C126	1-161-063-00	CERAMIC	0.1MF	50V	JK2	1-750-523-11	DC POWER JACK 6A 2P
C127	1-124-123-00	ELECT	100MF	16V	JK4	9-909-420-01	STEREO JACK 7P
C128	1-126-142-11	ELECT	100MF	35V			<COIL>
		<CONNECTOR>					
CN1	9-909-421-01	PLUG, CONNECTOR 11P			L5	9-909-427-01	LINEAR
CN2	9-909-421-01	PLUG, CONNECTOR 11P			L101	9-933-864-01	PEAKING COIL 1UH
CN3	9-933-861-01	HARNESS 3P			L102	9-933-865-01	PEAKING COIL
CN5	9-933-686-01	RCA JACK			L103	1-408-082-00	INDUCTOR 120UH
CN6	9-909-425-01	TERMINAL CONNECTOR 4P			L104	1-408-082-00	INDUCTOR 120UH
CN7	9-933-687-01	PLUG CONNECTOR 2P					
		<IC LINK>					
CPE	1-532-984-11	LINK IC 2A			L105	1-408-082-00	CHOKO 33UH
		<DIODE>			L106	1-410-397-21	FERRITE BEAD INDUCTOR
D10	8-719-200-02	DIODE 10E-2			L107	1-410-397-21	FERRITE BEAD INDUCTOR
D12	8-719-945-80	DIODE ERC06-15S					<TRANSISTOR>
D13	8-719-945-80	DIODE ERC06-15S			Q15	9-933-866-01	TRANSISTOR 2SC4161
D14	8-719-979-85	DIODE RGP20G			Q16	8-729-201-53	TRANSISTOR 2SA1015-GR
D15	8-719-200-02	DIODE 10E-2			Q17	8-729-201-53	TRANSISTOR 2SA1015-GR
D101	8-719-107-94	DIODE 1SS202-1			Q18	8-729-322-14	TRANSISTOR 2SD467C
D102	8-719-107-94	DIODE 1SS202-1			Q19	8-729-111-55	TRANSISTOR 2SD1312K
D103	8-719-107-94	DIODE 1SS202-1					
D105	8-719-107-94	DIODE 1SS202-1			Q102	8-729-201-53	TRANSISTOR 2SA1015-GR
D106	9-933-862-01	DIODE FR304/FR3004			Q103	8-729-201-53	TRANSISTOR 2SA1015-GR
D107	9-933-863-01	DIODE FR202/PR2003			Q104	8-729-281-53	TRANSISTOR 2SC1815-GR
D108	9-909-418-01	DIODE SR160			Q105	8-729-281-53	TRANSISTOR 2SA1815-GR
D109	8-719-107-94	DIODE 1SS202-1			Q106	8-729-906-95	TRANSISTOR 2SD2016
D110	8-719-107-94	DIODE 1SS202-1					
D111	8-719-107-94	DIODE 1SS202-1			Q107	8-729-281-53	TRANSISTOR 2SC1815-GR
D112	9-933-691-01	DIODE SR140			Q108	8-729-322-14	TRANSISTOR 2SD467C
D113	8-719-107-94	DIODE 1SS202-1			Q110	Δ 9-909-423-01	TRANSISTOR 50N05E
D114	8-719-107-94	DIODE 1SS202-1			Q114	8-729-141-89	TRANSISTOR 2SD1585-K
D115	8-719-107-94	DIODE 1SS202-1			Q115	8-729-322-14	TRANSISTOR 2SD467C
ZD1	8-719-110-33	DIODE RD12ES-B3					<RESISTOR>
ZD101	8-719-991-93	DIODE HZ9A3			R17	1-260-098-00	CARBON 820
ZD102	8-719-110-83	DIODE RD36ES-B2			R22	1-249-437-11	CARBON 47K
ZD103	8-719-110-33	DIODE RD12ES-B3			R33	1-247-704-11	CARBON 220
					R34	1-249-420-11	CARBON 1.8K
					R35	1-249-436-11	CARBON 39K
					R36	1-247-866-11	CARBON 30K
					R37	1-247-852-11	CARBON 7.5K
					R38	1-249-435-11	CARBON 33K
					R39	1-260-334-11	CARBON 3.3
					R40	1-249-422-11	CARBON 2.7K
							1/2W
							1/4W
							1/4W
							1/4W
							1/4W
							1/4W
							1/2W
							1/2W

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

D **A**

REF. NO.	PART NO.	DESCRIPTION	REMARK
R41	1-249-409-11	CARBON	220
R42	1-247-706-11	CARBON	330
R43	1-247-713-11	CARBON	1K
R44	9-933-694-01	CARBON	1.5
R45	1-249-428-11	CARBON	8.2K
R47	1-247-892-11	CARBON	360K
R48	9-933-695-01	CARBON	1.8
R49	1-247-713-11	CARBON	1K
R50	1-247-840-00	CARBON	2.4K
R51	9-933-696-01	CARBON	750
R52	1-249-461-11	CARBON	18K
R53	1-249-421-11	CARBON	2.2K
R54	1-247-840-00	CARBON	2.4K
R55	9-933-697-01	METAL OXIDE	150
R56	1-247-811-31	CARBON	150
R58	1-249-411-11	CARBON	330
R59	1-247-854-11	CARBON	9.1K
R60	1-249-437-11	CARBON	47K
R61	1-249-433-11	CARBON	22K
R62	Δ 1-249-429-11	CARBON	10K
R63	1-249-400-11	CARBON	39
R64	1-247-881-00	CARBON	120K
R101	1-249-434-11	CARBON	27K
R102	1-249-435-11	CARBON	33K
R103	1-247-885-00	CARBON	180K
R104	1-249-429-11	CARBON	10K
R105	Δ 1-249-437-11	CARBON	47K
R106	1-249-430-11	CARBON	12K
R107	1-247-842-11	CARBON	3K
R108	1-249-425-11	CARBON	4.7K
R109	1-249-439-11	CARBON	68K
R110	1-249-419-11	CARBON	1.5K
R111	1-249-433-11	CARBON	22K
R112	1-249-422-11	CARBON	2.7K
R113	1-249-417-11	CARBON	1K
R114	1-249-422-11	CARBON	2.7K
R115	1-249-438-11	CARBON	56K
R116	1-249-430-11	CARBON	12K
R117	1-249-419-11	CARBON	1.5K
R118	1-249-410-11	CARBON	270
R119	1-247-838-00	CARBON	2K
R120	1-249-430-11	CARBON	12K
R121	1-249-434-11	CARBON	27K
R125	1-249-397-11	CARBON	22
R126	1-247-842-11	CARBON	3K
R130	1-249-423-11	CARBON	3.3K
R131	1-247-838-00	CARBON	2K
R132	9-933-698-01	CARBON	22
R133	1-249-395-11	CARBON	15
R134	1-249-425-11	CARBON	4.7K
R135	1-249-415-11	CARBON	680
R136	1-249-415-11	CARBON	680
<TRANSFORMER>			
T1	9-909-422-01	TRANSFORMER	15UH
T2	Δ 9-909-428-01	TRANSFORMER, FLYBACK	

REF. NO.	PART NO.	DESCRIPTION	REMARK
T3	9-909-429-01	DRIVER TRANSFORMER 4:1	
<VARIABLE RESISTOR>			
VR1	Δ 1-228-996-00	RES, ADJ, METAL 47K	
VR2	1-228-991-00	RES, ADJ, METAL 2.2K	
VR3	Δ 1-228-993-00	RES, ADJ, METAL 4.7K	
VR4	9-933-700-01	RES, ADJ, METAL 2K	
VR5	1-228-995-00	RES, ADJ, METAL 22K	

	*9-909-430-01	A BOARD, COMPLETE	

<CAPACITOR>			
C1	1-163-251-11	CERAMIC CHIP 100PF	50V
C2	1-163-251-11	CERAMIC CHIP 100PF	50V
C3	1-135-199-21	TANTALUM CHIP 1MF	16V
C4	1-135-237-11	TANTALUM CHIP 2.2MF	16V
C5	1-163-227-11	CERAMIC CHIP 10PF	50V
C6	1-135-199-21	TANTALUM CHIP 1MF	16V
C7	1-126-964-11	ELECT 10MF	50V
C8	1-163-116-11	CERAMIC CHIP 91PF	50V
C9	1-163-104-00	CERAMIC CHIP 30PF	50V
C10	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C11	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C12	1-126-964-11	ELECT 10MF	50V
C13	1-135-199-21	TANTALUM CHIP 1MF	16V
C14	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C15	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C16	1-126-964-11	ELECT 10MF	16V
C17	1-126-964-11	ELECT 10MF	16V
C18	1-163-099-00	CERAMIC CHIP 18PF	50V
C19	1-163-141-00	CERAMIC CHIP 1000PF	50V
C20	1-163-141-00	CERAMIC CHIP 1000PF	50V
C21	1-163-109-00	CERAMIC CHIP 47PF	50V
C22	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C23	1-163-116-00	CERAMIC CHIP 91PF	50V
C24	1-135-199-21	CERAMIC CHIP 1MF	16V
C25	1-163-135-00	CERAMIC CHIP 560PF	50V
C26	1-135-155-21	TANTALUM CHIP 4.7MF	16V
C27	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C28	1-104-329-11	CERAMIC CHIP 0.1MF	50V
C29	1-164-161-11	CERAMIC CHIP 2200PF	50V
C31	1-135-155-21	TANTALUM CHIP 4.7MF	16V
C32	1-126-964-11	ELECT 10MF	50V
C33	1-126-964-11	ELECT 10MF	50V
C35	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C36	1-126-964-11	ELECT 10MF	16V
C37	1-126-964-11	ELECT 10MF	50V
C38	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C39	1-124-916-11	ELECT 22MF	63V
C43	1-163-107-00	CERAMIC CHIP 39PF	50V
C44	1-126-964-11	ELECT 10MF	16V
C46	1-135-199-21	TANTALUM CHIP 1MF	16V
C48	1-126-964-11	ELECT 10MF	16V
C49	9-933-701-11	ELECT 47MF	16V

A

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C50	1-163-109-00	CERAMIC CHIP 47PF	50V	C127	1-104-329-11	CERAMIC CHIP 0.1MF	50V
C51	1-126-933-11	ELECT 100MF	16V	C128	1-161-063-00	CERAMIC 0.1MF	50V
C52	1-163-098-00	CERAMIC CHIP 16PF	50V	C129	1-163-251-11	CERAMIC CHIP 100PF	50V
C53	1-126-933-11	ELECT 100MF	16V	C130	1-104-329-11	CERAMIC CHIP 0.1MF	50V
C54	1-163-107-00	CERAMIC CHIP 39PF	50V	C131	1-104-329-11	CERAMIC CHIP 0.1MF	50V
C55	1-163-135-00	CERAMIC CHIP 560PF	50V	C132	1-104-329-11	CERAMIC CHIP 0.1MF	50V
C56	1-126-964-11	ELECT 10MF	16V	C133	1-104-329-11	CERAMIC CHIP 0.1MF	50V
C57	1-104-329-11	CERAMIC CHIP 0.1MF	50V	C134	1-104-329-11	CERAMIC CHIP 0.1MF	50V
C58	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C135	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C59	1-163-034-11	CERAMIC CHIP 0.033MF	50V	C138	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C60	1-163-034-11	CERAMIC CHIP 0.033MF	50V	C910	1-163-235-11	CERAMIC CHIP 22PF	50V
C61	1-135-237-11	TANTALUM CHIP 2.2MF	16V	C911	1-163-251-11	CERAMIC CHIP 100PF	50V
C62	1-163-141-00	CERAMIC CHIP 1000PF	50V	C912	1-163-009-11	CERAMIC CHIP 1000PF	50V
C65	1-164-695-11	CERAMIC CHIP 2200PF	50V	C913	1-163-251-11	CERAMIC CHIP 100PF	50V
C66	1-164-695-11	CERAMIC CHIP 2200PF	50V	C914	1-163-251-11	CERAMIC CHIP 100PF	50V
C67	1-164-695-11	CERAMIC CHIP 2200PF	50V	C915	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C71	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C916	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C72	1-104-666-11	ELECT 220MF	25V	C917	1-163-251-11	CERAMIC CHIP 100PF	50V
C73	1-128-320-11	ELECT 2200MF	16V	C918	1-161-063-00	CERAMIC 0.1MF	50V
C74	1-126-964-11	ELECT 10uF	16V				
C75	1-126-964-11	ELECT 10MF	16V			<CONNECTOR>	
C77	1-104-329-11	CERAMIC CHIP 0.1MF	50V	CN1	9-909-440-01	CONNECTOR, FEMALE 11P	
C78	1-104-760-11	CERAMIC CHIP 0.047MF	50V	CN2	9-909-440-01	CONNECTOR, FEMALE 11P	
C79	1-135-237-11	TANTAL CHIP 2.2MF	16V	CN4	9-933-867-01	HARNESS 5P	
C80	1-124-916-11	ELECT 22MF	63V	CN5	9-933-868-01	CONNECTOR 2P	
C81	1-104-804-51	ELECT 1MF	160V	CN6	9-933-869-01	CONNECTOR 7P	
C84	1-164-232-11	CERAMIC CHIP 0.01MF	50V	CN7	9-933-870-01	CONNECTOR 4P	
C86	1-126-933-11	ELECT 100MF	16V	CN8	9-933-870-01	CONNECTOR 4P	
C87	1-135-199-21	TANTALUM CHIP 1MF	16V	CN9	9-933-871-01	CONNECTOR 2P	
C90	1-163-099-00	CERAMIC CHIP 18PF	50V			<DIODE>	
C92	1-135-237-11	TANTALUM CHIP 2.2MF	16V	D2	8-719-989-90	DIODE IN4148A	
C95	1-163-034-00	CERAMIC CHIP 0.033MF	50V	D3	8-719-989-90	DIODE IN4148A	
C96	1-163-111-00	CERAMIC CHIP 56PF	50V	D4	8-719-989-90	DIODE IN4148A	
C97	1-135-155-21	TANTALUM CHIP 4.7MF	16V	D7	8-719-989-90	DIODE IN4148A	
C98	1-135-155-21	TANTALUM CHIP 4.7MF	16V	D8	8-719-989-9	DIODE IN4148A	
C102	1-164-232-11	CERAMIC CHIP 0.01MF	50V	D9	8-719-989-90	DIODE IN4148A	
C103	1-163-036-11	CERAMIC CHIP 0.068MF	50V	D10	8-719-989-90	DIODE IN4148A	
C105	1-135-199-21	CERAMIC CHIP 1MF	16V	D11	8-719-989-90	DIODE IN4148A	
C106	1-164-232-11	CERAMIC CHIP 0.01MF	50V	D12	8-719-989-90	DIODE IN4148A	
C107	1-126-933-11	ELECT 100MF	16V	D13	8-719-989-90	DIODE IN4148A	
C108	1-164-232-11	CERAMIC CHIP 0.01MF	50V	D14	8-719-989-90	DIODE IN4148A	
C111	1-163-104-00	CERAMIC CHIP 30PF	50V	D15	8-719-989-90	DIODE IN4148A	
C112	1-104-329-11	CERAMIC CHIP 0.1MF	50V	D16	8-719-989-90	DIODE IN4148A	
C113	1-163-125-00	CERAMIC CHIP 220PF	50V	D17	8-719-989-90	DIODE IN4148A	
C114	1-104-329-11	CERAMIC CHIP 0.1MF	50V	D18	8-719-989-90	DIODE IN4148A	
C115	1-163-275-11	CERAMIC CHIP 1000PF	50V	D19	8-719-989-90	DIODE IN4148A	
C116	1-164-695-11	CERAMIC CHIP 2200PF	50V	ZD1	8-719-971-83	DIODE RLZJ3. 9B	
C117	1-124-360-00	ELECT 1000MF	16V	ZD2	8-719-972-57	DIODE RLZJ5. 6A	
C118	1-164-232-11	CERAMIC CHIP 0.01MF	50V	ZD3	8-719-971-95	DIODE RLZJ5. 1B	
C120	1-161-063-00	CERAMIC 0.1MF	50V	ZD4	8-719-972-03	DIODE RLZJ6. 2B	
C121	1-161-063-00	CERAMIC 0.1MF	50V	ZD7	8-719-974-36	DIODE RLZJ24D	
C122	1-164-232-11	CERAMIC CHIP 0.01MF	50V	ZD8	9-719-973-37	DIODE RLZJ11C	
C123	1-164-232-11	CERAMIC CHIP 0.01MF	50V	ZD12	8-719-972-57	DIODE RLZJ5. 6B	
C124	1-164-232-11	CERAMIC CHIP 0.01MF	50V	ZD13	8-719-971-95	DIODE RLZJ5. 1B	
C125	1-164-232-11	CERAMIC CHIP 0.01MF	50V	ZD14	8-719-971-95	DIODE RLZJ5. 1B	
C126	1-164-232-11	CERAMIC CHIP 0.01MF	50V				

REF. NO.	PART NO.	DESCRIPTION	REMARK
ZD15	8-719-971-95	DIODE RLZJ5.1B	
ZD16	8-719-971-95	DIODE RLZJ5.1B	
ZD17	8-719-971-95	DIODE RLZJ5.1B	
ZD18	8-719-971-95	DIODE RLZJ5.1B	
ZD19	8-719-971-95	DIODE RLZJ5.1B	
ZD20	8-719-971-95	DIODE RLZJ5.1B	
ZD22	8-719-974-36	DIODE RLZJ24D	
U1	9-904-656-01	IC LA7672	
U2	9-909-431-01	IC 93C56-3	
U3	9-909-432-01	IC Z86E4704PSC	
U4	8-759-420-04	IC AN5265	
U5	8-759-998-98	IC LM358D	
F3	9-933-740-01	CERAMIC FILTER	
F4	9-933-741-01	IPT	
F5	9-933-742-01	IPT	
F6	9-933-743-01	IPT	
F7	9-933-744-01	CERAMIC TRAP	
L1	1-410-381-31	CHIP INDUCTOR 10UH	
L3	1-410-383-31	CHIP INDUCTOR 15UH	
L5	1-410-385-31	CHIP INDUCTOR 0.68UH	
L6	1-410-385-31	CHIP INDUCTOR 22UH	
L12	1-410-393-11	CHIP INDUCTOR 100UH	
L15	1-410-386-31	CHIP INDUCTOR 27UH	
L18	1-410-385-31	CHIP INDUCTOR 22UH	
L21	1-410-369-31	CHIP INDUCTOR 1UH	
L22	1-410-385-31	CHIP INDUCTOR 22UH	
L23	1-410-658-31	CHIP INDUCTOR 220UH	
L24	1-410-658-31	CHIP INDUCTOR 220UH	
L25	1-410-393-11	CHIP INDUCTOR 100UH	
Q1	8-729-222-18	TRANSISTOR ZSC3605	
Q2	8-729-140-84	TRANSISTOR ZSC1841-PAFABA	
Q3	8-729-140-84	TRANSISTOR ZSC1841-PAFABA	
Q4	9-909-448-01	TRANSISTOR ZN3906	
Q5	8-729-140-84	TRANSISTOR ZSC1841-PAFABA	
Q6	8-729-901-00	TRANSISTOR DTC124EK	
Q7	8-729-139-04	TRANSISTOR ZN3904	
Q8	9-909-448-01	TRANSISTOR ZN3906	
Q10	8-729-901-00	TRANSISTOR DTC124EK	
Q13	8-729-901-05	TRANSISTOR DTA124EK	
Q14	8-729-901-00	TRANSISTOR DTC124EK	
Q15	8-729-901-00	TRANSISTOR DTC124EK	
Q16	8-729-901-05	TRANSISTOR DTA124EK	
Q17	8-729-901-05	TRANSISTOR DTA124EK	
Q18	9-933-705-01	TRANSISTOR BT169D	
Q19	8-729-231-92	TRANSISTOR ZSD799	
Q21	8-729-140-84	TRANSISTOR ZSC1841-PAFABA	
Q23	8-729-140-84	TRANSISTOR ZSC1841-PAFABA	
R26	1-216-029-00	RES, CHIP	10K
R25	1-216-073-00	RES, CHIP	10K
R28	1-208-770-11	RES, CHIP	330
R29	1-208-770-11	RES, CHIP	330
R30	1-208-770-11	RES, CHIP	330
R31	1-216-070-00	RES, CHIP	7.5K
R32	1-216-073-00	RES, CHIP	10K
R33	1-216-073-00	RES, CHIP	10K
R34	1-208-799-11	RES, CHIP	5.1K
R35	1-216-075-00	RES, CHIP	12K
R36	1-216-073-00	RES, CHIP	10K
R37	1-216-073-00	RES, CHIP	10K
R38	1-216-073-00	RES, CHIP	10K
R39	1-216-057-00	RES, CHIP	2.2K
R40	1-216-073-00	RES, CHIP	10K
R41	1-216-073-00	RES, CHIP	10K
R42	1-216-081-00	RES, CHIP	22K
R43	1-208-817-11	RES, CHIP	30K
R44	1-208-804-11	RES, CHIP	8.2K
R45	1-208-750-11	RES, CHIP	47
R49	1-208-813-11	RES, CHIP	20K
R50	1-208-813-11	RES, CHIP	20K
R52	1-208-774-11	RES, CHIP	470
R53	1-216-103-00	RES, CHIP	180K
R55	1-216-073-00	RES, CHIP	10K
R2	1-216-073-00	RES, CHIP	10K
R6	1-216-073-00	RES, CHIP	10K
R7	1-216-073-00	RES, CHIP	10K
R8	1-216-115-00	RES, CHIP	560K
R9	1-216-046-00	RES, CHIP	750
R10	1-216-057-00	RES, CHIP	2.2K
R11	1-208-789-11	RES, CHIP	2K
R12	1-208-774-11	RES, CHIP	470
R13	1-208-794-11	RES, CHIP	3.3K
R14	1-208-794-11	RES, CHIP	3.3K
R15	1-208-817-11	RES, CHIP	30K
R16	1-216-037-00	RES, CHIP	330
R17	1-216-099-00	RES, CHIP	120K
R18	1-216-049-00	RES, CHIP	1K
R19	1-216-073-00	RES, CHIP	10K
R20	1-208-798-11	RES, CHIP	4.7K
R21	1-216-073-00	RES, CHIP	10K
R22	1-216-065-00	RES, CHIP	4.7K
R23	1-208-776-11	RES, CHIP	560
R24	1-216-089-00	RES, CHIP	47K
R25	1-216-073-00	RES, CHIP	10K
R31	1-216-070-00	RES, CHIP	7.5K
R32	1-216-073-00	RES, CHIP	10K
R33	1-216-073-00	RES, CHIP	10K
R34	1-208-799-11	RES, CHIP	5.1K
R35	1-216-075-00	RES, CHIP	12K
R36	1-216-073-00	RES, CHIP	10K
R37	1-216-073-00	RES, CHIP	10K
R38	1-216-073-00	RES, CHIP	10K
R39	1-216-057-00	RES, CHIP	2.2K
R40	1-216-073-00	RES, CHIP	10K
R41	1-216-073-00	RES, CHIP	10K
R42	1-216-081-00	RES, CHIP	22K
R43	1-208-817-11	RES, CHIP	30K
R44	1-208-804-11	RES, CHIP	8.2K
R45	1-208-750-11	RES, CHIP	47
R49	1-208-813-11	RES, CHIP	20K
R50	1-208-813-11	RES, CHIP	20K
R52	1-208-774-11	RES, CHIP	470
R53	1-216-103-00	RES, CHIP	180K
R55	1-216-073-00	RES, CHIP	10K
Q26	8-729-139-04	TRANSISTOR ZN3904	
Q27	9-909-448-01	TRANSISTOR ZN3906	
Q28	8-729-140-84	TRANSISTOR ZSC1841-PAFABA	
Q29	8-729-139-04	TRANSISTOR ZN3904	
Q30	8-729-140-84	TRANSISTOR ZSC1841-PAFABA	
Q31	8-729-140-84	TRANSISTOR ZSC1841-PAFABA	
Q32	8-729-140-84	TRANSISTOR ZSC1841-PAFABA	
Q33	8-729-140-84	TRANSISTOR ZSC1841-PAFABA	
Q34	8-729-140-84	TRANSISTOR ZSC1841-PAFABA	
<RESISTOR>			
<FILTER>			
<COLL>			
<TRANSISTOR>			





REMARK

9-909-461-01
 9-909-462-01
 9-909-464-01
 SCREW M2.6x8 W/WASHER
 SCREW M3x8
 ANTENNA CONTACT PLATE

DESCRIPTION

PART NO.

REF. NO.

REMARK

DESCRIPTION

PART NO.

REF. NO.

the components identified by
 shading and mark Δ are criti-
 cal for safety.
 replace only with part number
 specified.

REF. NO.	PART NO.	DESCRIPTION	QTY	UNIT	REF. NO.	PART NO.	DESCRIPTION	QTY	UNIT
R62	1-208-822-11	RES, CHIP	47K	1/10W	R142	1-216-073-00	RES, CHIP	68	1/10W
		RES, CHIP	47K	1/10W	R143	1-216-073-00	RES, CHIP	10K	1/10W
R63	1-208-822-11	RES, CHIP	47K	1/10W	R144	1-216-073-00	RES, CHIP	10K	1/10W
R64	1-216-021-00	RES, CHIP	68	1/10W	R145	1-216-049-00	RES, CHIP	1K	1/10W
R65	1-216-097-00	RES, CHIP	100K	1/10W	R146	1-216-073-00	RES, CHIP	10K	1/10W
R66	1-216-097-00	RES, CHIP	100K	1/10W	R150	1-216-073-00	RES, CHIP	10K	1/10W
R67	1-216-097-00	RES, CHIP	100K	1/10W	R151	1-208-818-11	RES, CHIP	33K	1/10W
					R152	1-208-822-11	RES, CHIP	47K	1/10W
R68	1-216-081-00	RES, CHIP	22K	1/10W	R153	1-216-099-00	RES, CHIP	120K	1/10W
R70	1-208-790-11	RES, CHIP	2. 2K	1/10W	R155	1-216-073-00	RES, CHIP	10K	1/10W
R71	1-208-790-11	RES, CHIP	2. 2K	1/10W	R157	1-208-808-11	RES, CHIP	12K	1/10W
R73	1-216-073-00	RES, CHIP	10K	1/10W	R162	1-216-089-00	RES, CHIP	47K	1/10W
R74	1-208-788-11	RES, CHIP	1. 8K	1/10W	R163	1-216-073-00	RES, CHIP	10K	1/10W
R75	1-208-822-11	RES, CHIP	47K	1/10W	R164	1-208-802-11	RES, CHIP	6. 8K	1/10W
R76	1-216-073-00	RES, CHIP	10K	1/10W	R165	1-216-049-11	RES, CHIP	1K	1/10W
R77	1-208-798-11	RES, CHIP	4. 7K	1/10W	R168	1-216-073-00	RES, CHIP	10K	1/10W
R80	1-216-097-00	RES, CHIP	100K	1/10W	R173	1-208-789-11	RES, CHIP	2. 2K	1/10W
R81	1-216-097-00	RES, CHIP	100K	1/10W	R175	1-208-812-11	RES, CHIP	62K	1/10W
R82	1-216-097-00	RES, CHIP	100K	1/10W	R176	1-216-049-00	RES, CHIP	1K	1/10W
R83	1-216-097-00	RES, CHIP	100K	1/10W	R178	1-216-027-00	RES, CHIP	120	1/10W
R84	1-216-070-00	RES, CHIP	7. 5K	1/10W	R180	1-216-027-00	RES, CHIP	120	1/10W
R85	1-216-077-00	RES, CHIP	15K	1/10W	R183	1-216-049-00	RES, CHIP	1K	1/10W
R86	1-216-086-00	RES, CHIP	36K	1/10W	R184	1-216-049-00	RES, CHIP	1K	1/10W
R87	1-216-073-00	RES, CHIP	10K	1/10W	R185	1-216-097-00	RES, CHIP	100K	1/10W
R92	1-216-061-00	RES, CHIP	3. 3K	1/10W	R187	1-216-049-00	RES, CHIP	1K	1/10W
R93	1-208-798-11	RES, CHIP	4. 7K	1/10W	R188	1-216-049-00	RES, CHIP	1K	1/10W
R94	1-208-752-11	RES, CHIP	1K	1/10W	R190	1-216-089-00	RES, CHIP	47K	1/10W
R95	1-208-794-11	RES, CHIP	3. 3K	1/10W	R191	1-216-073-00	RES, CHIP	10K	1/10W
R96	1-216-029-00	RES, CHIP	150	1/10W	R192	1-216-073-00	RES, CHIP	10K	1/10W
R97	1-216-053-00	RES, CHIP	1. 5K	1/10W	R193	1-216-039-00	RES, CHIP	390	1/10W
R99	1-216-058-00	RES, CHIP	2. 4K	1/10W	R194	1-216-085-00	RES, CHIP	33K	1/10W
R101	1-216-077-00	RES, CHIP	15K	1/10W	R195	1-216-085-00	RES, CHIP	33K	1/10W
R102	1-216-053-00	RES, CHIP	1. 5K	1/10W	R199	1-216-689-11	RES, CHIP	39K	1/10W
R103	1-216-097-00	RES, CHIP	100K	1/10W	R200	1-216-057-00	RES, CHIP	2. 2K	1/10W
R107	1-216-097-00	RES, CHIP	100K	1/10W	R201	1-216-081-00	RES, CHIP	22K	1/10W
R108	1-216-097-00	RES, CHIP	100K	1/10W	R202	1-216-056-00	RES, CHIP	2K	1/10W
R109	1-216-097-00	RES, CHIP	100K	1/10W	R203	1-216-056-00	RES, CHIP	2K	1/10W
R110	1-216-067-00	RES, CHIP	5. 6K	1/10W	R204	1-216-093-00	RES, CHIP	68K	1/10W
R111	1-208-778-11	RES, CHIP	680	1/10W	R205	1-216-101-00	RES, CHIP	150K	1/10W
R113	1-216-049-00	RES, CHIP	1K	1/10W	R206	1-216-689-11	RES, CHIP	39K	1/10W
R114	1-249-387-11	CARBON	3. 3	1/4W	R207	1-216-073-00	RES, CHIP	10K	1/10W
R115	1-249-385-11	CARBON	2. 2	1/4W	R208	1-216-073-00	RES, CHIP	10K	1/10W
R116	1-216-113-00	RES, CHIP	470K	1/10W	R209	1-216-089-00	RES, CHIP	47K	1/10W
R117	1-216-089-00	RES, CHIP	47K	1/10W	R210	1-216-101-00	RES, CHIP	150K	1/10W
R118	1-247-831-00	CARBON	1K	1/4W	R211	1-216-027-00	RES, CHIP	120	1/10W
R119	1-216-049-00	RES, CHIP	1K	1/10W	R212	1-216-049-00	RES, CHIP	1K	1/10W
R120	1-208-826-11	RES, CHIP	68K	1/10W	R213	1-216-049-00	RES, CHIP	1K	1/10W
R123	1-208-804-11	RES, CHIP	8. 2K	1/10W	R214	1-216-049-00	RES, CHIP	1K	1/10W
R124	1-208-794-11	RES, CHIP	3. 3K	1/10W	R215	1-216-043-00	RES, CHIP	560	1/10W
R125	1-216-053-00	RES, CHIP	1. 5K	1/10W	R217	1-216-043-00	RES, CHIP	560	1/10W
R127	1-216-053-00	RES, CHIP	1. 5K	1/10W	R218	1-216-043-00	RES, CHIP	560	1/10W
R128	1-208-755-11	RES, CHIP	75	1/10W	R219	1-216-049-00	RES, CHIP	1K	1/10W
R132	1-216-085-00	RES, CHIP	33K	1/10W	R220	1-216-043-00	RES, CHIP	560	1/10W
R135	1-208-794-11	RES, CHIP	3. 3K	1/10W	R221	1-216-043-00	RES, CHIP	560	1/10W

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.



REF. NO.	PART NO.	DESCRIPTION	REMARK
R222	1-216-057-00	RES, CHIP 2.2K	1/10W
R223	1-216-093-00	RES, CHIP 68K	1/10W
R224	1-216-089-00	RES, CHIP 47K	1/10W
R225	1-216-089-00	RES, CHIP 47K	1/10W
R226	1-216-089-00	RES, CHIP 47K	1/10W
R227	1-216-095-00	RES, CHIP 82K	1/10W
R228	1-216-087-00	RES, CHIP 39K	1/10W
R229	1-216-093-00	RES, CHIP 68K	1/10W
R230	1-216-081-00	RES, CHIP 22K	1/10W
R904	1-216-073-00	RES, CHIP 10K	1/10W
R905	1-216-033-00	RES, CHIP 220	1/10W
R906	1-216-063-00	RES, CHIP 3.9K	1/10W
R907	1-216-081-00	RES, CHIP 22K	1/10W
R908	1-216-073-00	RES, CHIP 10K	1/10W
<TUNER>			
T1	9-909-439-01	TUNER ET(TUMUF3U-291)	
<VARIABLE RESISTOR>			
VR1	1-228-996-11	RES, ADJ, METAL 50K	
VR3	1-228-996-11	RES, ADJ, METAL 50K	
VR4	1-228-994-11	RES, ADJ, METAL 10K	
VR5	1-228-995-11	RES, ADJ, METAL 22K	
<CRYSTAL>			
Y1	9-909-437-01	CRYSTAL 4MHz	
Y2	9-909-436-01	CRYSTAL 3.58MHz	

*9-909-450-01 H BOARD, COMPLETE			

9-909-453-01 SPACER LED PG/LED-6			
<DIODE>			
D1	9-909-451-01	DIODE CSL-F300HG2NT	
<SWITCH>			
K1	1-554-937-11	SWITCH, KEY BOARD	
K2	1-554-937-11	SWITCH, KEY BOARD	
K3	1-554-937-11	SWITCH, KEY BOARD	
K4	1-554-937-11	SWITCH, KEY BOARD	
K5	1-554-937-11	SWITCH, KEY BOARD	
K6	1-554-937-11	SWITCH, KEY BOARD	
K7	1-554-937-11	SWITCH, KEY BOARD	

MISCELLANEOUS			

X-4309-319-3 PERMALOY ASSY, CONVERGENCE			
Δ 1-526-958-71 SOCKET, PICTURE TUBE			
2-161-889-02 SPACER, DY			
4-039-836-11 EMBLEM (No3, 5), SONY			
4-046-809-01 COVER, HANDLE			
4-046-810-01 COVER, CONTROL PANEL			

REF. NO.	PART NO.	DESCRIPTION	REMARK
	9-909-461-01	SCREW M2.6×8 W/WASHER	
	9-909-462-01	SCREW M3×8	
	9-909-464-01	ANTENA CONTACT PLATE	
	9-909-466-01	RUBBER FOOT	
	9-909-470-01	BEZEL SUB ASSY	
	9-909-471-01	HANDOL ASSY	
	9-909-472-01	BOTTOM CABINET SUB ASSY	
	9-909-473-01	TOP CABINET SUB ASSY	
	Δ 1-452-749-11	NECK ASSY (NA-201)	
	Δ 8-451-454-11	DEFLECTION YOKE (Y06JSA2K)	
	Δ 8-738-658-05	PICTURE TUBE (A13LDS00X)	
	9-909-460-01	SPEAKER	
	9-909-465-01	ANTENA	

ACCESSORIES & PACKING MATERIALS			

1-690-044-13 CAR BATTERY CORD			
	Δ 1-473-111-11	AC ADAPTOR	

